

Calculating the focal length

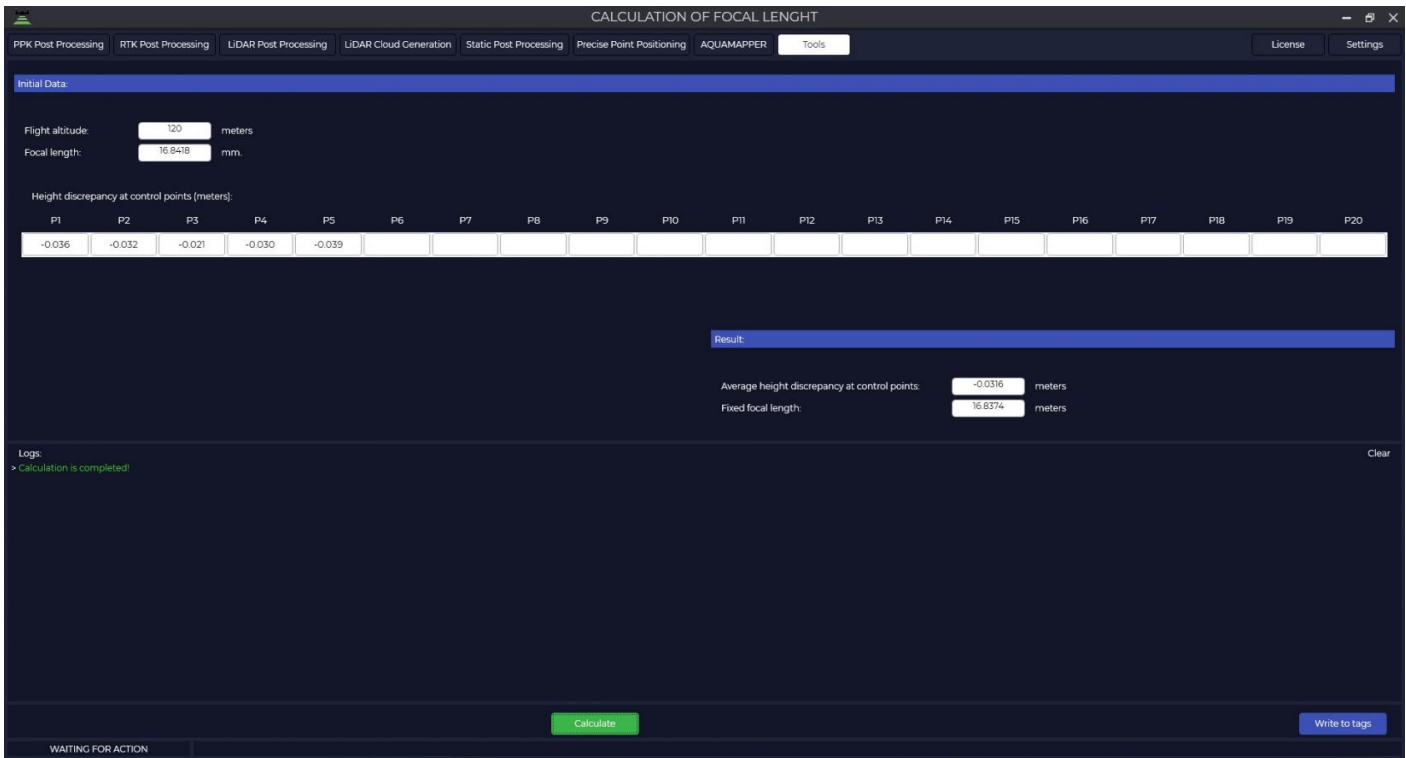
This tool is not directly related to GNSS data processing, but it helps to calculate the focal length of the camera, which is necessary for data processing in photogrammetric programs.

Instructions for calculating the focal length:

1. Click the Tools tab and select Focal Length Calculation.
2. In the opened window specify the following parameters: flight altitude of your aircraft, previously obtained focal distance in millimeters (from the result of aerotriangulation in photogrammetric software) and error values by height of your control points.

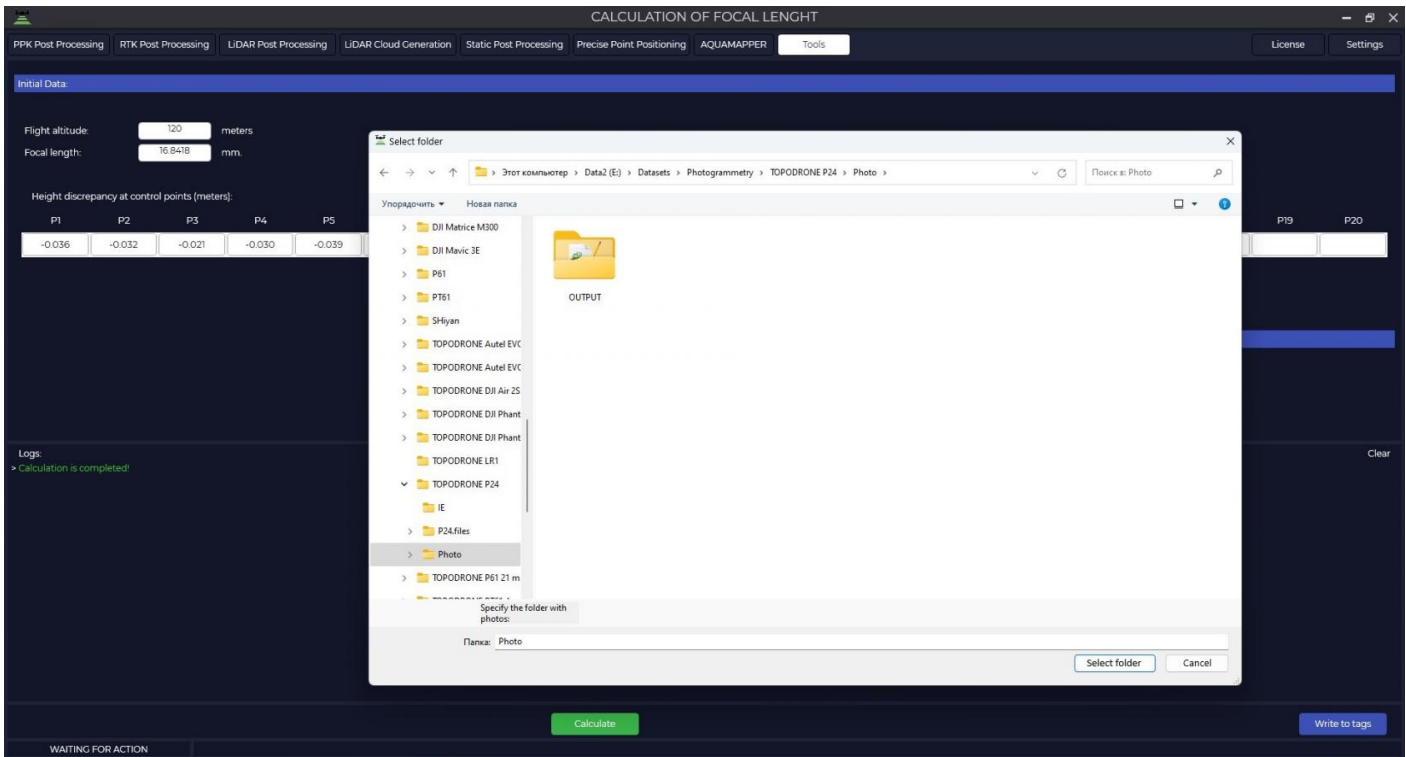
The screenshot shows a software window titled "CALCULATION OF FOCAL LENGTH". The interface is dark-themed and includes a top navigation bar with tabs for various processing tasks, with "Tools" selected. Below the navigation bar, there is a section for "Initial Data" with input fields for "Flight altitude" (in meters) and "Focal length" (in mm). A horizontal row of 20 input fields, labeled P1 through P20, is provided for "Height discrepancy at control points (meters)". Below this, a "Result" section displays "Average height discrepancy at control points" and "Fixed focal length", both with output fields in meters. At the bottom, there is a "Logs" section with a "Clear" button and a prominent green "Calculate" button. A status bar at the very bottom indicates "WAITING FOR ACTION" and a "Write to tags" button.

3. Click the "Calculate" button. The program will calculate average height error and focal length, which can be used in photogrammetric programs.



4. If necessary, the new focal length can be written to the EXIF tags of your photos by clicking the "Write to Tags" button. This will help in further photogrammetric data processing.

5. Specify the folder with the photos.



6. The program will write the new focal length to all photos in the specified folder.

The program replaces the focal length in the o

CALCULATION OF FOCAL LENGTH

PPK Post Processing | RTK Post Processing | LIDAR Post Processing | LIDAR Cloud Generation | Static Post Processing | Precise Point Positioning | AQUAMAPPER | Tools | License | Settings

Initial Data:

Flight altitude: meters
Focal length: mm.

Height discrepancy at control points (meters):

| P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 | P10 | P11 | P12 | P13 | P14 | P15 | P16 | P17 | P18 | P19 | P20 |
|--------|--------|--------|--------|--------|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| -0.036 | -0.032 | -0.021 | -0.030 | -0.039 | | | | | | | | | | | | | | | |

Result:

Average height discrepancy at control points: meters
Fixed focal length: meters

Logs:

- > Success: FocalLength = 16.8374
- > Writing tags to DSC00150.JPG
- > Success: FocalLength = 16.8374
- > Writing tags to DSC00151.JPG
- > Success: FocalLength = 16.8374
- > Writing tags to DSC00152.JPG
- > Success: FocalLength = 16.8374
- > Writing tags to DSC00153.JPG
- > Success: FocalLength = 16.8374
- > Writing tags to DSC00154.JPG
- > Success: FocalLength = 16.8374
- > Writing tags to DSC00155.JPG
- > Success: FocalLength = 16.8374
- > Writing tags to DSC00156.JPG
- > Success: FocalLength = 16.8374
- > Writing tags to DSC00157.JPG
- > Success: FocalLength = 16.8374
- > Writing tags to DSC00158.JPG
- > Success: FocalLength = 16.8374
- > Writing tags to DSC00159.JPG

Calculate | Stop write to tags | Write to tags

WRITING TAGS | 14

Revision #3

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